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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/743,753      | 12/24/2003  | Owen Charles Kolstad | 08350.3313          | 8934             |

22852 7590 06/03/2005

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| EXAMINER |
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TRAN, BINH Q

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

3748

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|                               |                        |                     |  |
|-------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary.</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 10/743,753             | KOLSTAD ET AL.      |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | BINH Q. TRAN           | 3748                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/24/2003</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

*Claims 1-23 are rejected under 35 U.S.C. 102 (b) as being anticipated by Gillingham et al. (Gillingham) (Patent Number 5,293,742).*

Regarding claims 1, 15, 17, and 22, Gillingham discloses a particulate trap (e.g. 30, 36, 38), comprising: a housing (e.g. 42, 74, 280, 342); a plurality of filters (e.g. 38, 38') disposed within the housing; a plurality of dividers (e.g. 80, 82, 85, 296, 298, 384, 390) fluidly isolating one or more of the plurality of filters into filter divisions; at least one inlet and at least one outlet individually associated with each filter division; and a valve assembly (e.g. 84, 88, 128, 130, 308, 528) configured to selectively block a flow of exhaust through each of the inlets (e.g. See Figs. 1-27; col. 5, lines 14-67; col. 6, lines 1-67; col. 7, lines 1-20).

Regarding claim 2, Gillingham further discloses that the at least one inlet includes at least one inlet tube, and the at least one outlet includes at least one outlet tube (e.g. See Figs. 1-27; col. 8, lines 61-67; col. 9, lines 1-67).

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Regarding claim 3, Gillingham further discloses that the at least one inlet includes a plurality of inlet tubes and the at least one outlet includes a plurality of outlet tubes (e.g. See Figs. 1-27; col. 8, lines 61-67; col. 9, lines 1-67).

Regarding claims 4, and 18, Gillingham further discloses that each of the plurality of filters includes a plurality of filter sections, each filter section being regenerable (e.g. See Figs. 1-27; col. 7, lines 64-67; col. 8, lines 1-60).

Regarding claim 5, Gillingham further discloses that each of the plurality of filter sections includes an electrically conductive wire (e.g. 122, 174, 180) mesh medium (e.g. See Figs. 1-27; col. 10, lines 4-67; col. 11, lines 1-67).

Regarding claim 6, Gillingham further discloses that each of the plurality of filter sections has a substantially corrugated shape tubes (e.g. See Figs. 1-27; col. 8, lines 61-67; col. 9, lines 1-67; col. 10, lines 1-32).

Regarding claims 7, 16, and 19, Gillingham further discloses that the valve assembly includes a plurality of valve elements, each of the plurality of valve elements being configured to selectively block one of the at least one inlets tubes (e.g. See Figs. 1-27; col. 13, lines 45-67; col. 14, lines 1-67; col. 15, lines 1-62).

Regarding claims 8, 20, and 23, Gillingham further discloses a controller operable to selectively cause regeneration of at least one of the plurality of filter sections when a predetermined condition has been satisfied (e.g. See Figs. 1-27; col. 7, lines 64-67; col. 8, lines 1-60).

Regarding claim 9, Gillingham further discloses that the predetermined condition is a lapsed period of engine operation (e.g. See Figs. 1-27; col. 7, lines 64-67; col. 8, lines 1-60).

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Regarding claim 10, Gillingham further discloses that the predetermined condition is a pressure differential measured across the filter divisions (e.g. See Figs. 1-27; col. 7, lines 20-67; col. 8, lines 1-60).

Regarding claim 11, Gillingham further discloses that each of the plurality of filters is substantially rectangular and a flow of exhaust enters a first side of the plurality of filters and exits a second side of the plurality of filters (e.g. See Figs. 1-27; col. 8, lines 61-67; col. 9, lines 1-67).

Regarding claim 12, Gillingham further discloses that all of the inlets receive exhaust from a common inlet chamber and all outlets flow exhaust to a common outlet chamber (e.g. See Figs. 1-27; col. 8, lines 61-67; col. 9, lines 1-67).

Regarding claim 13, Gillingham further discloses an exhaust flow through each of the plurality of filters flows in one direction (e.g. See Figs. 1-27; col. 8, lines 61-67; col. 9, lines 1-67).

Regarding claims 14, and 21, Gillingham further discloses that each of the plurality of filters is independently replaceable (e.g. See Figs. 1-27; col. 8, lines 61-67; col. 9, lines 1-67).

#### ***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of six patents:

Anahara et al. (Pat. No. 5454845), Saito et al. (Pat. No. 6120583), Ohno et al. (Pat. No. 6447564), Peter et al. (Pat. No. 6572682), Gillingham et al. (Pat. No. 5357755), and Bailey et al.

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(Pat. No. 6233926) all discloses an exhaust gas purification for use with an internal combustion engine.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT  
May 28, 2005



Binh Q. Tran  
Patent Examiner  
Art Unit 3748